

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	5680	257/706,712,719,930,e21.084,e23.051,e23.082,e27.007,e27.008.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 10:33
L2	301	H01L23/34.ipc.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 10:33
L3	2	H01L35/04.ipc.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 10:33
L4	5855	L1 L2 L3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 10:33
L6	1391	4 and (thermoelectric\$4 or (therm\$4 near3 electric\$4))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 12:32
L7	256	6 and convert\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 10:35
L8	221	7 and (cold\$4 or cool\$4 or (low adj temperature))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 11:27
L9	17	8 and ((cold\$4 or cool\$4 or (low adj temperature)) same (embed\$4 or buried))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 10:55
L10	4	((("6,191,945") or ("6,285,550")).PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2006/07/28 10:56
L11	3	("6034408"   "6222254"   "6437437").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/07/28 11:05
L12	204	8 not (9 10 11)	US-PGPUB; USPAT; USOCR	OR	ON	2006/07/28 11:06
L13	135	12 and (die or chip or "IC" or (integrated adj circuit))	US-PGPUB; USPAT; USOCR	OR	ON	2006/07/28 11:30

## EAST Search History

L14	120	13 and (@ad<"20031021" or @rlad<"20031021")	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 12:06
L15	2557	(thermoelectric\$4 or (therm\$4 near3 electric\$4)) and ((cold\$4 or cool\$4 or (low adj temperature)) same (embed\$4 or buried))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 12:03
L16	2540	15 not (9 10 11 14)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 12:04
L17	665	16 and (die or chip or "IC" or (integrated adj circuit)) and (@ad<"20031021" or @rlad<"20031021")	US-PGPUB; USPAT; USOCR	OR	ON	2006/07/28 11:30
L18	54	17 and ((cold\$4 or cool\$4 or (low adj temperature)) same (embed\$4 or buried) same acti\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 12:03
L19	2679	257/712.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 12:31
L24	13982	((((thermoelectric\$4 or (therm\$4 near3 electric\$4)) near3 convert\$4) or peltier) and (die or chip or device or "IC" or (integrated adj circuit)) and (cold\$4 or cool\$4 or (low adj (temperature or heat or therm\$4))))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 13:02
L25	2541	(24 not (9 10 11 14 18)) and ((cold\$4 or cool\$4 or (low adj (temperature or heat or therm\$4))) same activ\$4)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 12:56
L26	40	25 and ((cold\$4 or cool\$4 or (low adj (temperature or heat or therm\$4))) same activ\$4 same (embed\$4 or buried))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 13:04
L28	940	(((((thermoelectric\$4 or (therm\$4 near3 electric\$4)) near3 convert\$4) or peltier) and (die or chip or device or "IC" or (integrated adj circuit)) and (cold\$4 or cool\$4 or (low adj (temperature or heat or therm\$4))))).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 13:03
L29	694	28 and (heat or hot or (high adj (temperature or thermal\$3))).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 13:03

## EAST Search History

L30	17	29 and ((cold\$4 or cool\$4 or (low adj (temperature or heat or therm\$4))) same (embed\$4 or buried)).clm.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/07/28 13:05
S1	1	"20050085075"	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/07/27 18:34
S2	4	("6586835" "6588217" "6613602" "6614109").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/03 20:35
S3	10	("5040381"   "5229327"   "5233622"   "5637921"   "5712448"   "5724818"   "5874775"   "5956569"   "6121539"   "6222113").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/03 20:42
S4	0	("6614109").URPN.	USPAT	OR	ON	2006/03/03 20:50
S5	1	shimada-ryo.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/04 19:51
S6	1321	(peltier or thermoelectric or (them\$5 adj electr\$4)) and hot and (cold\$3 or cool\$3) and (chip or die or "IC") and substrate	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:03
S7	608	S6 and (@ad<"20031021" @rlad<"20031021") and ((heat\$3 or thermal\$3) near2 (sink or spread\$3 or releas\$3 or dissipat\$3))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 20:16
S8	182	S7 and (("n" and "p") adj (type or region or area or conductivit\$3))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/04 19:59
S9	54	S8 and embed\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/04 19:59
S10	7	(US-6614109-\$ or US-6613602-\$ or US-6222113-\$ or US-5956569-\$ or US-5724818-\$ or US-5637921-\$ or US-5040381-\$).did.	USPAT	OR	ON	2006/03/04 19:59
S11	54	S9 not S10	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/04 20:02
S12	9	S11 and ((flip adj chip) or flipchip) and (bump or ball or solder)	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/04 20:24
S13	45	S11 not S12	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/04 20:23

## EAST Search History

S14	124	S8 not (S9 S10 S5)	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/04 20:57
S15	13	S14 and ((flip adj chip) or flipchip) and (bump or ball or solder)	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/04 20:24
S16	13	("5040381"   "5229327"   "5233622"   "5637921"   "5712448"   "5724818"   "5867990"   "5874775"   "5956569"   "5966941"   "6000225"   "6121539"   "6222113").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/04 20:26
S17	4	("4304294"   "5130276"   "5279128"   "5720171").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/04 20:28
S18	21	("5966941").URPN.	USPAT	OR	ON	2006/03/04 20:28
S19	16	("2149286"   "2407896"   "2421024"   "2502576"   "3412566"   "3460015"   "4492730"   "4574879"   "4760325"   "4810563").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/04 20:40
S20	32	("5040381").URPN.	USPAT	OR	ON	2006/03/04 20:41
S21	374	S6 and (@ad<"20031021" @rlad<"20031021") and (embed\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/04 20:56
S22	320	S21 not (S9 S10 S5 S11 S15 S16 S17 S18 S19 S20)	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/04 20:57
S23	150	S22 and ((heat\$3 or thermal\$3) near2 (sink or spread\$3 or releas\$3 or dissipat\$3))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 18:46
S24	27	"5724818"	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 18:46
S25	1706	(peltier or therm\$4electric or (them\$5 adj electr\$4)) and hot and (cold\$3 or cool\$3) and (chip or die or "IC") and (wafer or substrate or board)	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:45
S26	531	S25 and (@ad<"20031021" @rlad<"20031021") and (buried or embed\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:30
S27	7	S26 and (hot and (cool\$3 or cold\$3)) near2 (element or part or section or component)	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:10
S28	236	(S26 not S27) and ((chip or die or "IC") with (active (surface or side)))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:14
S29	131	S28 and (((heat\$3 or thermal\$3) near2 (sink or spread\$3 or releas\$3 or dissipat\$3)) or (heatsink or heatspread\$3 or thermalsink or thermalspreader))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:17

## EAST Search History

S30	100	S29 and ((hot or cool\$3 or cold\$3) with (active (surface or side)))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:14
S31	6	S29 and ((hot or cool\$3 or cold\$3) with (active adj (surface or side)))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:15
S32	5	(S26 not S27) and ((chip or die or "IC") with (active adj (surface or side)))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:14
S33	269	(S26 not (S24 S27 S31 S32)) and (((heat\$3 or thermal\$3) near2 (sink or spread\$3 or releas\$3 or dissipat\$3)) or (heatsink or heatspread\$3 or thermalsink or thermalspreader))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:18
S34	5	S25 and ((chip or die or "IC") with (embed\$3 or buried or (buil\$3 adj in) or buil\$3-in) with (cool\$3 or cold or hot) with (element or part or component or region or layer or device))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:37
S35	14	(peltier or therm\$4electric or (therm\$5 adj electr\$4)) and ((chip or die or "IC") with (embed\$3 or buried or (buil\$3 adj in) or buil\$3-in) with (cool\$3 or cold or hot) with (element or part or component or region or layer or device))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:52
S36	9	S35 not S34	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:47
S37	42	(peltier or therm\$4electric or (therm\$5 adj electr\$4)) and ((chip or die or "IC") with (embed\$3 or buried or (buil\$3 adj in) or buil\$3-in) with (cool\$3 or cold or hot))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 20:14
S38	28	S37 not (S35)	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 19:53
S39	7	("4935864"   "5229643"   "5313094"   "5621616"   "5650639"   "5744863"   "5767578").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/03/05 19:57
S40	21	("5955781").URPN.	USPAT	OR	ON	2006/03/05 20:03
S41	114	(peltier or therm\$4electric or (therm\$5 adj electr\$4)) and ((chip or die or "IC") with (heat or thermal) with absorb\$3 with (region or electrode or pad or area or layer or plate or element or component or part))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 20:15
S42	52	S41 and (@ad<"20031021" @rlad<"20031021") and ((heat\$3 or thermal\$3) near2 (sink or spread\$3 or releas\$3 or dissipat\$3))	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 20:16
S43	44	S42 and (substrate or wafer or board)	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 20:17

## EAST Search History

S44	43	S43 not (S24 S27 S31 S32 S34 S35 S38 S39 S40)	US-PGPUB; USPAT; USOCR; EPO; JPO; IBM_TDB	OR	ON	2006/03/05 20:17
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